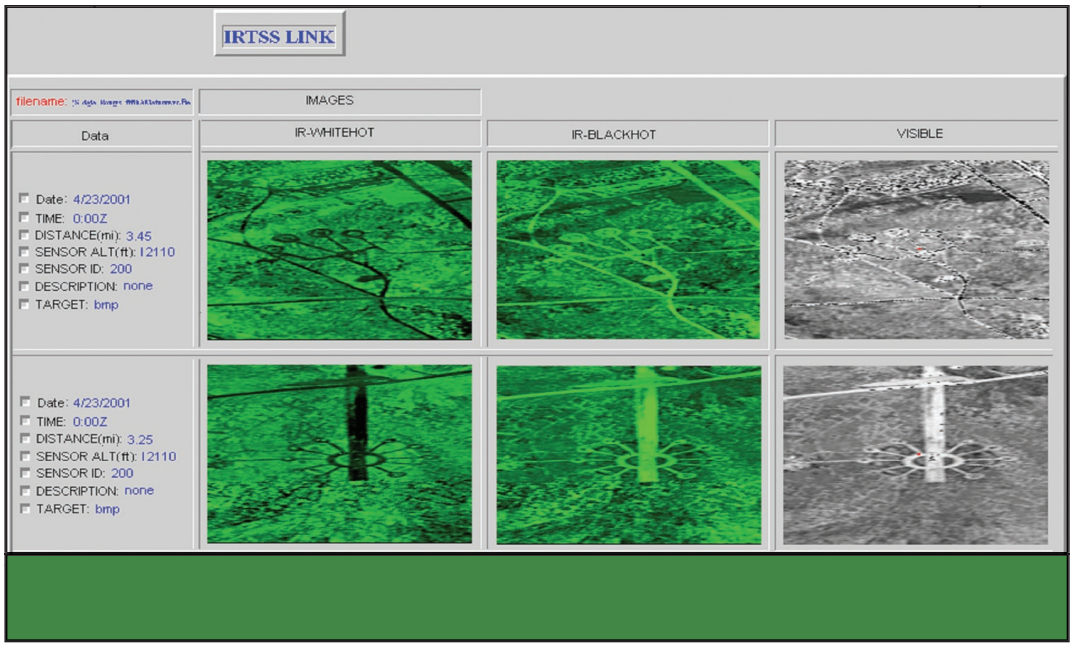
Air Force Research Laboratory|AFRL

Science and Technology for Tomorrow's Air and Space Force

Success Story

INFRARED TARGET-SCENE SIMULATION SOFTWARE



Infrared Target-Scene Simulation Software (IRTSS) simulates target-area scenes as seen on the cockpit display for infrared (IR) weapons systems. These scenes include time of day and weather effects for any attack altitude and heading.

Air Force Research Laboratory
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Accomplishment

Space Vehicles Directorate personnel transitioned IRTSS software to support Red Flag exercises at Nellis Air Force Base, Nevada in February 2002. Pilot use of IRTSS during mission rehearsal improves situational awareness and optimizes attack effectiveness while reducing critical pilot "heads-down time."

Background

IRTSS generates visualizations by running physics/engineering-based (IR thermal, atmospheric, and sensor) models over a user-specified geographic area populated with user-specified target types and locations, based on forecast weather data input. IRTSS comes pre-packaged with geographic data sets and targets. IRTSS derives target representations from knowledge of target geometry and material composition.

Space Vehicles
Support to the Warfighter

Additional information

To receive more information about this or other activities in the Air Force Research Laboratory, contact TECH CONNECT, AFRL/XPTC, (800) 203-6451 and you will be directed to the appropriate laboratory expert. (02-VS-11)